

# AC Solid State Relay – 280V 20A Zero-Cross Turn-on



## Product Description

For AC switching applications, this solid state relay is economical and reliable. Using the digital outputs from a Phidgets device such as the [OUT1100 – 4x Digital Output Phidget](#), you can control the relay to silently switch an AC circuit at 280V/20A or less. This relay has a Zero-crossing turn-on, which means it waits for the AC signal to cross zero before switching on. For an explanation of what this means, please visit [this section](#) of our SSR primer.

If your SSR is overheating, you should consider getting a heat sink for safety. See the Connection & Compatibility tab for a list of compatible heatsinks. This SSR comes with a heat transfer pad that can be placed between the metal base of the SSR and the surface it's mounted to in order to help encourage heat flow. It also comes with a varistor that can be used to protect your SSR against voltage spikes in some applications.

## Comes Packaged with



This SSR comes with a heat transfer pad and a protective cover. Use the heat transfer pad whenever mounting the SSR on a heat sink or metal surface. We recommend that you use the plastic cover if there is any risk of a person or conductive material accidentally touching the load side contacts. The other AC we relays we've sold in the past have come with an external varistor. This relay has additional protective circuitry inside, so an external varistor is not needed.

## Connection

This relay can be controlled using a Phidgets relay output board. See the Connection & Compatibility tab for details.

## Warnings

1. Product Specifications If you're running the SSR close to its maximum current rating, you'll probably need to mount it to a heat sink or a surface that can function as a heat sink.
2. Use the heat transfer pad between the SSR and the heat sink. Failure to do so can cause overheating and could damage the relay.
3. Make sure that the SSR terminal screws are tight. If the screws are not tight, the SSR will get damaged by heat generated when the power is ON.
4. When an SSR fails, it most often fails permanently closed – leaving your load powered, and possibly creating a fire or safety hazard. Be sure to have failsafes in these situations.
5. Make sure that you use the relay within the product specifications.
6. Ensure that the relay terminals are covered or protected when switching high voltage loads.

### **Electrical Properties**

Isolation Method	Photoelectric
Dielectric Strength	4 kV AC
Control Voltage Min	4 V DC
Control Voltage Max	32 V DC
Load Voltage Max (AC)	280 V AC
Load Current Max (AC)	20 A
Load Surge Current	200 A
Relay Turn-on Type	Zero-crossing
Turn-on Time Max	(1/2 cycle plus) 1 ms

### **Physical Properties**

Length	58.6 mm
Width	45.7 mm
Height	26.5 mm
Operating Temperature Min	-30 °C

Operating Temperature Max 80 °C

**Other Properties**

Manufacturer Part Number KS15D-24Z20-Y

\* – For an explanation of what this means, please visit [this section](#) of our SSR primer.

Have a look at the [Data Sheet](#) for a complete set of specifications.